



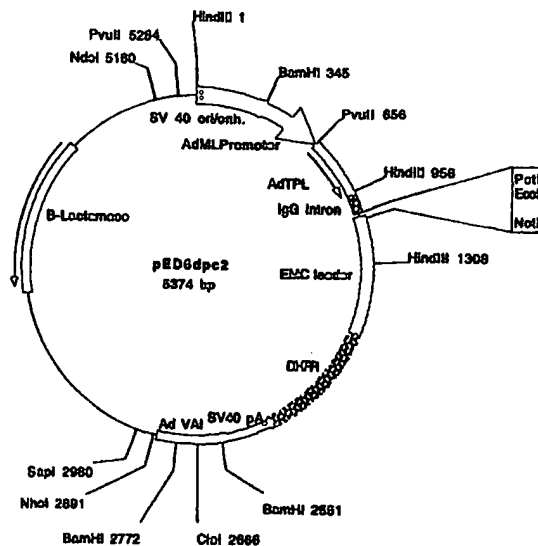
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(54) Title: SECRETED PROTEINS AND POLYNUCLEOTIDES ENCODING THEM

(57) Abstract

Novel polynucleotides and the proteins encoded thereby are disclosed.



Plasmid name: pED8dpc2
Plasmid size: 5374 bp

Comments/References: pED8dpc2 is derived from pED8dpc1 by insertion of a new polylinker to facilitate cDNA cloning. SST cDNAs are cloned between EcoRI and NotI. pED vectors are described in Kaufman et al. (1991), NAR 19: 4485-4490.

PA (UYCA)- UNIV CASE WESTERN RESERVE.
XX
PI Montano M, Wiltman B;
XX MPI; 2002-519107/55.
DR P-PsDB; ABB76495.
XX
XX Polynucleotides encoding Estrogen Down-Regulated Gene 1 proteins,
PT useful for the prevention, diagnosis and treatment of e.g. breast
PT cancer, testicular cancer, prostate cancer, uterine cancer, cervical
PT cancer, ovarian cancer and colon cancer -
XX
PS Claim 1; Fig 1A-B; 52pp; English.
XX
XX The present sequence is the coding sequence for human oestrogen
CC downregulated gene 1 (EDG1), a tumour suppressor gene that is
CC downregulated by oestrogen in mammary epithelial cells. The gene
CC was identified by yeast two-hybrid screenings for oestrogen
CC receptor-interacting proteins in breast epithelial cells. It
CC was localised to chromosome arm 17q. EDG1 mRNA expression is
CC prevalent in normal mammary epithelial cells and in other human
CC hormone-responsive tissues such as the ovary, prostate and testis.
CC Expression is low in breast cancer epithelial cells. Oestradiol,
CC which induces breast cancer cell growth, has an inhibitory effect
CC on EDG1 mRNA expression in breast cancer cells. Hexamethylene
CC bis-acetamide, an inducer of differentiation and apoptosis,
CC upregulates EDG1 mRNA expression in breast cancer cells. The
CC invention provides EDG1 polynucleotides and polypeptides. In a
CC claimed method, a test sample from an individual suspected of
CC having, or known to have breast, testicular, prostate, uterine,
CC cervical, ovarian or colon cancer is assayed for EDG1 transcript
CC using a polynucleotide that is complementary to the present
CC sequence or by RT-PCR using a primer transcribed from the present
CC sequence. A decrease in the level of transcript compared to the
CC level in a test sample indicates that the test sample contains or
CC was derived from cancerous cells antibody. A claimed method for
CC decreasing the proliferation of breast, prostate, testicular,
CC ovarian, uterine, cervical or colon cancer cells involves increasing
CC EDG1 protein activity in the cells, either by contacting the cells
CC with EDG1 protein or its fragment or functional equivalent, or with
CC a nucleic acid encoding EDG1 protein, its fragment or functional
CC equivalent.

SQ Sequence 1080 BP; 265 A; 296 C; 376 G; 143 T; 0 other;

Query Match	100.0%;	Score 1080;	DB 24;	Length 1080;
Best Local Similarity	100.0%;	Pred. No. 8.7e-214;		
Matches 1080;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

QY 1 ATGGCCGAGCCATTCTTSTCGAATATCAACACAGAGCTCAAACTATGCAACTGTACAGGT 60
Db 1 ATGGCCGAGCCATTCTTSTCGAATATCAACACAGAGCTCAAACTATGCAACTGTACAGGT 60
QY 61 GCTGCTGCTGTCCAGGAAGAGTGAACCTTGACGACCCCCACAGCGCGGAGAGGCGGTG 120
Db 61 GCTGCTGCTGTCCAGGAAGAGTGAACCTTGAGCGCCCCCCACAGCGCGGAGAGGCGGTG 120
QY 121 CCCGAGGAGGACACTAGTGGCGAATCAGAGAGCGTTCCCCCACTTGGGTGGCCGTCGCGGG 180
Db 121 CCCGAGGAGGACACTAGTGGCGAATCAGAGAGCGTTCCCCCACTTGGGTGGCCGTCGCGGG 180
QY 181 CCGGAGGGGGGAAAGGAGCGCTGGAAATCCCAACCACTCCCTTGCAGACCCAGGCTGTGCA 240
Db 181 CCGGAGGGGGGAAAGGAGCGCTGGAAATCCCAACCACTCCCTTGCAGACCCAGGCTGTGCA 240
QY 241 GATCTACTGCTGCTAGAGAGGGGCGAAGGGCCGAAATGGGGAGAGATCGTCCCTGGCC 300
Db 241 GATCTACTGCTGCTAGAGAGGGGCGAAGGGCCGAAATGGGGAGAGATCGTCCCTGGCC 300
QY 301 GCGCACTTCCGGCCCGCCGACAAATGGAACCGAGCGCCCGAGGCGAGGTGTCGCGCCAG 360
Db 301 GCGCACTTCCGGCCCGCCGACAAATGGAACCGAGCGCCCGAGGCGAGGTGTCGCGCCAG 360

QY	361	CCCTGTATATACATCCGAGGCGACAGTAATTTGGGGCTCTCTCCGCTAGGGGGGGAAGAGAG	420
Db	361	CCTTTGTATATACATCCGAGGCGACAGTAATTTGGGGCTCTCTCCGCTAGGGGGGGAAGAGAG	420
QY	421	TGGGGACAGCAGCAGAGACAGCTGGGGGAAGAAAAACATAGAGACGCCCTCCAAAG	480
Db	421	TGGGGACAGCAGCAGAGACAGCTGGGGGAAGAAAAACATAGAGACGCCCTCCAAAG	480
QY	481	AAGCGCATGTGGAAACCGTACTACAACTGACACTCGGGGAAGAGAAAAAGTTGAGAG	540
Db	481	AAGCGCATGTGGAAACCGTACTACAACTGACACTCGGGGAAGAGAAAAAGTTGAGAG	540
QY	541	AAACAGACCTTCGAGCTTCAAGGATCCGAGCCGAGATGTTGCCAAAGGGCCACCGCTC	600
Db	541	AAACAGACCTTCGAGCTTCAAGGATCCGAGCCGAGATGTTGCCAAAGGGCCACCGCTC	600
QY	601	GGCGCCCTATACACACACAGCAGTTCTCTATGATGATATACACACAGGAGAGCCGAGACTC	660
Db	601	GGCGCCCTATACACACACAGCAGTTCTCTATGATGATATACACACAGGAGAGCCGAGACTC	660
QY	661	AAAACCGGCTGTACTCCAGCGGGCCGCCCAATCCAGACGACACAGCAGATGAGAG	720
Db	661	AAAACCGGCTGTACTCCAGCGGGCCGCCCAATCCAGACGACACAGCAGATGAGAG	720
QY	721	TTTCATGGAAGAAAGGGGTGAGAGGATGGGGGGCAGCGATGGGATGGGAAGGGAGCGC	780
Db	721	TTTCATGGAAGAAAGGGGTGAGAGGATGGGGGGCAGCGATGGGATGGGAAGGGAGCGC	780
QY	781	GAGTTTTCGAGCGGCGACTCTCGAGAACCTACAGAGGGTATACACACAGAGAGCC	840
Db	781	GAGTTTTCGAGCGGCGACTCTCGAGAACCTACAGAGGGTATACACACAGAGAGCC	840
QY	841	AACATGACGAAGCAGAGCTCATCAGAGACTACCTGAACTGGAAAGTGCCTC	900
Db	841	AACATGACGAAGCAGAGCTCATCAGAGACTACCTGAACTGGAAAGTGCCTC	900
QY	901	ATGGAGAGACGGAACAACCGGCTCGGGCTGGAGAGCAAGCGGGCTGGGGGGGGA	960
Db	901	ATGGAGAGACGGAACAACCGGCTCGGGCTGGAGAGCAAGCGGGCTGGGGGGGGA	960
QY	961	CGTGTGCGGAGCTGAGCTGAGAGCTGAGACCGGCTGCGCGCGGCGAAGACTCCACTGCTG	1020
Db	961	CGTGTGCGGAGCTGAGCTGAGAGCTGAGACCGGCTGCGCGCGGCGAAGACTCCACTGCTG	1020
QY	1021	ACCGAAGAACCACTGCACCGGGCAGCAGAGAGCGACGCCCTTCCAAAGTTGGAGACTAG	1080
Db	1021	ACCGAAGAACCACTGCACCGGGCAGCAGAGAGCGACGCCCTTCCAAAGTTGGAGACTAG	1080

RESULT 2
AAV82778
ID AAV82778 standard; cDNA; 2199 BP

AC AAV82778;

DT 25-FEB-1999 (first entry)

DE Clone bp783_3 isolated from human foetal kidney cDNA library

KM Secreted protein, nutritional activity; immune stimulating; vaccine;
KM suppressing activity; haematopoiesis regulating activity;
KM tissue growth activity; activin; inhibin activity; chemotaxis;
KM chemokinesis activity; haemostasis; thrombolytic activity; receptor;
KM ligand, anti-inflammatory; cadherin; tumour invasion suppressor;
KM tumour inhibition, gene therapy ds.

05 Homo sapiens

PN ~~W09842739-A2~~

PD 01-OCT-1998.

20-MAR-1998; 98WO-US05653

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XX 19-MAR-1998: 9805-0044466.
PR 21-MAR-1997: 9705-0822167.
XX (GEMV) GENETICS INST INC.
XX Agostino M.J. Jacobs K. Lavallie ER. McCoy JM. Merberg D.
PI Racie LA. Spaulding V. Treacy M.
XX WPI, 1998-609890/51.
DR P-PSDB: AAW85455.
XX New polynucleotides encoding secreted human proteins - derived from
PT human foetal brain, adult brain, foetal kidney, placenta or adult
PT pineal gland cDNA libraries.
XX Claim 1: Page 66-67; 113pp; English.
XX
XX The present sequence encodes a secreted protein. The polynucleotide and
CC secreted protein are predicted to have biological activities which would
CC make them suitable for treating, preventing or ameliorating medical
CC conditions in humans and animals, although no supporting data is given.
CC Suggested activities include nutritional activity, immune stimulating
CC (e.g. as vaccines) or suppressing activity, haematopoiesis regulating
CC activity, tissue growth activity, activity/inhibit activity,
CC chemotactic/chemokinetic activity, haemostatic and thrombolytic activity,
CC receptor/ligand activity, anti-inflammatory activity, cadherin/tumour
CC invasion suppressor activity, and tumour inhibition activity (no data is
CC given in the specification to support these activities). The
CC polynucleotide is also stated to be useful for gene therapy.
XX
SQ Sequence 2199 BP; 552 A; 511 C; 674 G; 462 T; 0 other;

Query Match 99.7%; Score 1076.8; DB 19; Length 2199;
Best Local Similarity 99.8%; Pred. No. 4.5e-213;
Matches 1078; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 AAGGCGGACCATTTCTTGCAGATATCAACACCACTCAAACTAGCACTGTACAGT 60
DB 707 AAGGCGGACCATTTCTTGCAGATATCAACACCACTCAAACTAGCACTGTACAGT 766
QY 61 GCTGCTGCTCCAG 120
DB 767 GCTGCTGCTCCAG 826
QY 121 CCGGAG 180
DB 827 CCGGAG 886
QY 181 CCGGAG 240
DB 887 CCGGAG 946
QY 241 GAATAGTACCTGCTGAG 300
DB 947 GAATAGTACCTGCTGAG 1006
QY 301 GCGCACTTCGCGCAG 360
DB 1007 GCGCACTTCGCGCAG 1066
QY 361 CTTTGTATGACTCCGAG 420
DB 1067 CTTTGTATGACTCCGAG 1126
QY 421 TGGGAGACAGACAG 480
DB 1127 TGGGAGACAGACAG 1186
QY 481 AAGCGCATTTGGAACCCGTAATCAAGCTGAAGTGGAGAGAGAGAGAGAGAGAGAGAG 540
DB 1187 AAGCGCATTTGGAACCCGTAATCAAGCTGAAGTGGAGAGAGAGAGAGAGAGAGAGAG 1246

QY 541 AAACAGAGCCTTGAGCTTCAAGATCCGAGCCGAGATGTTGCCAAGGGCCAGCCGGTC 600
DB 1247 AAACAGAGCCTTGAGCTTCAAGATCCGAGCCGAGATGTTGCCAAGGGCCAGCCGGTC 1306
QY 601 GCGCCTATPAACACAGAGAGTTCTCATGATGATGATGATGATGATGATGATGATGAT 660
DB 1307 GCGCCTATPAACACAGAGAGTTCTCATGATGATGATGATGATGATGATGATGATGAT 1366
QY 661 AAACAGAGCCTTGAGCTTCAAGATCCGAGCCGAGATGTTGCCAAGGGCCAGCCGGTC 720
DB 1367 AAACAGAGCCTTGAGCTTCAAGATCCGAGCCGAGATGTTGCCAAGGGCCAGCCGGTC 1426
QY 721 TTGATGAG 780
DB 1427 TTGATGAG 1486
QY 781 GAGTTTCTGAG 840
DB 1487 GAGTTTCTGAG 1546
QY 841 AACATGAG 900
DB 1547 AACATGAG 1606
QY 901 ATGAG 960
DB 1607 ATGAG 1666
QY 961 CCGTGTGCGGAG 1020
DB 1667 CCGTGTGCGGAG 1726
QY 1021 ACCGAG 1080
DB 1727 ACCGAG 1786

RESULT 3
ABQ92015
ID ABQ92015 standard; cDNA; 2199 BP.
XX
AC ABQ92015;
XX
DT 04-OCT-2002 (first entry)
XX
DE Human polynucleotide SEQ ID NO 12.
XX
XX Human; cytosolic; antirheumatic; antiarthritic; vulnary; analgesic;
KW antinflammatory; antibacterial; immunosuppressive; antiparkinsonian;
KW neuroprotective; nootropic; osteopathic; haemostatic; vasotropic;
KW antitumor; fungicide; antidiabetic; antistimulant; antiallergic;
KW immunostimulant; antiparasitic; secreted protein; transmembrane protein;
KW cytokine; cell proliferation; cell differentiation; autoimmune disease;
KW stem cell; growth factor; nervous system disease; neuropathy;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease;
KW osteoporosis; severe combined immunodeficiency; SCID; infection;
KW multiple sclerosis; rheumatoid arthritis; gene therapy; gene; ss.
XX
OS Homo sapiens.
XX
PN US2002065394-A1.
XX
PD 30-MAY-2002.
XX
XX 22-DEC-2000; 2000US-0745763.
PF 18-MAR-1998; 98US-0040963.
PR
XX
XX (JACO/) JACOBS K.
PA (MCCO/) MCCOY J M.
PA (LAVA/) LAVALLIE E R.
PA (COLL/) COLLINS-RACIE L A.
PA (EVAN/) EVANS C.